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John F. Sells

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By John F. Sells

International trade is the result of the desire on the part of those engaged therein to realize profits either directly from the trade itself or indirectly from its effect on prices and profits in their domestic trade. The activities of the exporter are based upon his desire to increase the volume of his business by taking advantage of trading opportunities in foreign markets and to increase his profits as a result. On the other hand, the importer desires to buy merchandise in foreign countries at advantageous prices so that he may sell in his own country at a profit. From their knowledge of commodity prices and markets, persons engaged in business may be competent to judge the trading possibilities in foreign countries so long as the relative exchange values of the currencies involved in which prices are stated remain constant. However, when the relative exchange values of the currencies fluctuate, the amounts to be paid for merchandise or to be realized on its sales are no longer certain but depend to a considerable degree upon the value of the foreign currency as indicated by the current exchange rates, so that fluctuations in exchange rates introduce an element of uncertainty and speculation into the results of international commercial transactions.

In the following discussion the term "American" is used to mean of or belonging to the United States.

Whenever business transactions involve more than one currency they are affected by changes in the relative exchange value of the currencies involved, as indicated by the quoted exchange rates. The trading profit or loss from the transaction itself may be directly increased or decreased as a result of changes in exchange rates, or there may be a gain or loss resulting from the actual conversion of the proceeds from one currency to another, known generally as a foreign-exchange gain or loss. The variations in exchange rates affect trading profits or losses only when there is a change in the relative exchange value of the currencies involved in a business transaction. If a business transaction involves two currencies both of which fluctuate in value relative to gold but maintain the same relation one to the other, there can be no gain nor loss due to exchange fluctuations on the transaction.

As an illustration let it be assumed that a company, operating in the Argentine, sells part of its product in Great Britain. If the Argentine paper peso is quoted at 40 cents U. S. and the pound sterling at $4.80, the sale for £1 of an article costing 10 pesos would realize a profit of 2.00 pesos to the Argentine company. American currency is used in this illustration because at the present time it is equivalent with gold. The same profit would be realized in pesos if the value of the Argentine paper peso were worth 36 cents U. S. and the £ sterling $4.32, a drop of 10% in the value of each currency. If, however, the value of the Argentine paper peso remains unchanged while that of the £ sterling drops to $4.32, the trading profit to the Argentine company will be only .80 pesos. This difference in profit may be defined as a decrease in the trading profit due to the decline in the exchange value of the £ sterling. If the Argentine company were a wholly owned subsidiary of an American corporation, the trading profit would in the first case be 80 cents U. S., but after the decline of 10% in the £ sterling and Argentine peso the trading profit on the transaction would be only 72 cents U. S. It is therefore apparent that variations in value of foreign currencies are of considerable interest to American companies doing business in foreign countries.

Referring again to the foregoing illustration it should be noted that if the proceeds of the transaction were not converted until some time after the completion of the transaction, and in the meantime there had been any change in the relative value of the Argentine and British currencies, there would be an exchange gain or loss representing the difference between the amount which would have originally been obtainable in Argentine currency and the amount actually remitted. It should be noted that in the illustration used if the transaction were completed before the 10% decline in the value of both the £ sterling and Argentine peso but the proceeds were retained in the Argentine until the value of the Argentine peso had fallen to 36 cents U. S., the profit to the American company would be 72 cents U. S. The difference of 8 cents would represent the exchange gain or loss resulting from the delayed conversion of the foreign proceeds. The term "foreign exchange gain or loss" generally refers to gains or losses which are attributable to the retention of current assets in foreign countries.

When goods are purchased in a foreign country and payment for them is to be made in the currency of the country in which the purchases are effected, the purchaser must meet his obligation in that currency. If the relative value of the foreign currency decreases, the purchaser can acquire the required amount of the foreign currency for a less amount of his domestic currency, and his merchandise purchases therefore cost him less in his own currency. As a concrete example take the case of an American company purchasing raw materials in Canada. Under normal conditions the difference in the exchange value of American and Canadian dollars is negligible and, except for transactions of considerable magnitude, the effect of such variation may be disregarded. When the value of the Canadian dollar drops to 80 cents U. S., however, a purchase involving $1,000 in Canada may be settled by remitting $800 U. S. The effect of changes in the relative value of the two currencies is, therefore, to decrease the cost of the commodity to the purchaser when the relative value of the foreign currency falls and, conversely, to increase the cost when the foreign currency rises. If the particular foreign country is either the only source of supply for the material or the dominant factor in the market, any rise or fall in the relative value of its currency immediately affects the profit or loss of the purchaser by its effect on the cost of the material used and on the market value of the material on hand or in transit. It may be noted that if the foreign market price converted to the domestic currency of the purchaser at the current rate of exchange at the inventory date results in a price less than the actual cost in domestic currency, the inventory prices should be reduced to the converted foreign market price, but, if the actual cost in domestic currency is the lower, no adjustment should be made, thus complying with the rule governing inventory valuations, viz.: "cost or market, whichever is lower."

This rule also applies to purchases made by a foreign subsidiary for the parent company so that inventory on hand in the foreign country awaiting shipment need not be adjusted to give effect to lower foreign market prices unless the foreign market prices converted into the parent company's domestic currency give a value less than the actual cost in that currency. If the relative values of the currencies involved become stabilized on a new basis the domestic market price of the commodity will be affected eventually although the foreign country may not be a dominant factor in the market, since (ignoring the effect of tariffs) if the relative value of its currency rises, the cost in the domestic currency of the material purchased abroad is increased so that the domestic goods are cheaper. This will lead to an increased domestic demand, which will tend to increase domestic prices until a state of equilibrium shall have been reached. Conversely a decline in the value of the foreign currency reduces the cost of the foreign goods in domestic currency thus tending to increase the demand for the foreign goods, which will result in raising the foreign market price until a state of equilibrium shall have been reached with the domestic market. In order to protect himself against a rise in the exchange value of the foreign currency the importer should purchase an amount of foreign currency equivalent to his material purchases as soon as he has contracted for the merchandise; otherwise a rise in the relative value of the foreign currency will increase the cost of the merchandise expressed in his domestic currency.

The shipment of goods to a foreign country for sale at prices fixed in the shipper's domestic currency does not result necessarily in gains or losses when the foreign currency rises or falls in relation to the other currency. A decline, however, in the relative exchange value of the foreign currency would compel the foreign customer to pay more in his own currency for the goods and thus increase the "sales resistance" and tend to decrease the volume of shipper's sales in the foreign country. The increase in sales price expressed in the foreign currency would be accompanied by lower distribution costs to the shipper stated in his currency, since the foreign expenses payable in that currency would not be adjusted immediately to the fall in value of the foreign currency, unless they were computed on the basis of the sales prices. Therefore, if the sales price and volume can be maintained the foreign business will yield greater profits when the value of the foreign currency declines. In the same manner a rise in the relative value of the foreign currency would result in reduced selling prices expressed in the foreign currency, reduced "sales resistance," an increase in volume and increased distribution expenses expressed in the domestic currency of the shipper. The following statement shows the effect of the decline in the value of the £ sterling upon the accounts of an American shipper whose products are sold in England at prices fixed in American currency:

	£1 = $4.80	£1 = $3.84
Net sales	$4,800	$4,800
Cost of sales	4,000	4,000
Gross profit	$ 800	$ 800
Selling expenses, etc., payable in foreign currency—£100	480	384
Net profit	$ 320	$ 416

In the illustration it should be noted that although the net sales in United States dollars is the same in both cases, the amounts paid by the British customers would be £1,000–0–0 in the first case and £1,250–0–0 in the second. If at the time of sale the American shipper accepts £ sterling from his customers at the ruling rate of exchange in payment of his dollar invoices and does not immediately convert the receipts into American currency he would suffer an exchange loss if the value of the £ sterling declined. For example, if the goods were sold for £1,000 when the £ sterling was worth $4.80, but the proceeds were deposited in a sterling account until after the value of the £ sterling had dropped to $3.84, the American shipper would be able to get only $3,840 for the £1,000 and would suffer an exchange loss of $960 due to his delay in conversion of the £ sterling into dollars. On the other hand, if the value of the £ sterling had increased to $4.85 the £1,000 would buy $4,850 and there would be an exchange gain of $50. It is therefore apparent that leaving the proceeds of business transactions in foreign currencies results in profits or losses which are speculative in nature.

When goods are shipped to a foreign country for sale at prices fixed in the foreign currency any change in the relative values of the two currencies involved directly affects the profits of the shipper, since the sales prices expressed in the domestic currency vary directly with the relative value of the currencies involved while the cost to the shipper is not affected. This is illustrated by the following statement showing the effect of values of the £ sterling of $4.80 and $3.84 on the profits realized by an American concern on sales made in sterling:

	£1 = $4.80		£1 = $3.84	
	£	$	£	$
Net sales	1,000–0–0	4,800	1,000–0–0	3,840
Cost of sales		4,000		4,000

	£1 = $4.80 £	$	£1 = $3.84 £	$
Gross profit or *loss*		800		*160*
Selling expenses, etc.	100–0–0	480	100–0–0	384
Net profit or *loss*		320		*544*

If there are other sources of supply which are not affected by the fluctuation in the relative value of the currencies in question, an increase in the relative value of the foreign currency would result in a competitive advantage to the shipper, since he could reduce the foreign currency price and still maintain the same margin of profit in his domestic currency. Assuming an increase in the value of the £ sterling from $4.40 to $4.84 the following statement shows the adjustment which may be made in the sterling selling price by an American shipper and still realize the same profit:

	£1 = $4.40 £	$	£1 = $4.84 £	$
Net sales	1,000–0–0	4,400	918–3–7	4,444
Cost of sales		3,600		3,600
Gross profit		800		844
Selling expenses payable in £ sterling	100–0–0	440	100–0–0	484
Net profit		360		360

It should be borne in mind that (if the foreign sales expenses do not vary directly with sales prices) an increase in the exchange value of the foreign currency results in increased costs of distribution to the shipper and, vice versa, a decline results in decreased distribution expenses; but these adjustments do not offset the effect of variations in exchange rates on the trading profit, as the amount of expenses involved generally must be much less than the sales. If the relative value of the two currencies becomes stabilized on a new basis, the selling prices in the foreign currency will tend to adjust themselves to the new relative values, unless other sources of supply which are not affected by the fluctuations in the currencies involved, control the situation. It will be seen, therefore, that when sales are made in a foreign currency the trading profits or losses expressed in the shipper's domestic currency are directly affected by exchange fluctuations. In addition, if the shipper allows the proceeds to remain in the foreign currency he will suffer an exchange loss if the foreign currency goes down and will realize an exchange gain if it goes up, and by delaying the conversion into his domestic currency he speculates on the future exchange rates. If the shipper wishes to eliminate speculation from his foreign business he should—

1. Create a foreign currency debt equal to the cost of the goods shipped abroad by either selling an equivalent amount in the foreign currency and realizing domestic currency therefor or borrowing an equivalent amount in the foreign currency and transferring the proceeds into his domestic currency.
2. Transfer the net proceeds of all sales into his domestic currency, as they are received.

By following this procedure the speculative risk involved in the foreign business would be restricted to the unrealized profit on goods shipped for sale in the foreign country and unsold. If the goods are sold the full amount of the sale should be covered by the sale of foreign currency when the sale is made, so as to protect the realization in the shipper's domestic currency.

The effect of fluctuations in the exchange value of foreign currencies upon commercial transactions has been discussed and it has been shown that trading profits are affected by exchange fluctuations and that when the proceeds of sales are retained in a foreign currency any fluctuations in the relative values result in exchange gains or losses to the shipper. When business in a foreign country is conducted by a foreign subsidiary, not only are the trading profits of the parent company affected by changes in the relative values of the currencies involved, but the company is also subject to exchange gains and losses, since the value of the net assets of the subsidiary in the currency of the parent company varies directly with the relative value of the foreign currency. The rule for obtaining the sound value of the net assets of a subsidiary operating in a foreign country is that (a) all capital assets should be carried at the cost to the parent company in its currency, i. e., they should be converted to the currency of the parent company at the rates prevailing when the assets were acquired, and (b) all other assets and liabilities should be converted at the current rate of the date of valuation. It may be noted that for convenience the property accounts should be carried in both currencies and that depreciation should also be computed in both currencies.

So far as the parent company is concerned the profit or loss on the operations of its foreign subsidiary, after allowing for dividends received, is measured by the change during the period in the value of its foreign net assets expressed in the parent company's currency. If the exchange value of the foreign currency expressed in the domestic currency of the parent company remains constant throughout the period, the subsidiary's profit or loss in the parent company's domestic currency will be equivalent to the profit or loss realized on the subsidiary's regular trading operations converted at the prevailing rate of exchange. The amount of the foreign subsidiary's operating profit or loss expressed in the parent company's currency is obtained by converting the results, before deducting depreciation as shown by the subsidiary's books, into the parent company's currency at the average rate of exchange for the period. The provision for depreciation should be computed in both currencies by applying the rates used to the property values expressed in the two currencies. The following tabulation indicates the procedure in the case of a British subsidiary of an American corporation, assuming the average exchange value of the £ sterling during the period to be $4.25 and the average cost of the properties to be at the rate of £1 = $4.80:

	£	Rate of conversion	$
Net profit before depreciation...............	10,000–0–0	4.25	42,500
Deduct depreciation.......................	1,000–0–0	4.80	4,800
Net profit...............................	9,000–0–0		37,700

If, however, the value of the foreign subsidiary's currency expressed in the parent company's currency has fluctuated during the period, there will be an additional gain or loss to the parent company resulting from the conversion of the net current assets at the current rate of exchange at the end of the period. The following statement illustrates the method of determining the gain or loss to the parent company resulting from the fluctuation of exchange rates:

Net worth of subsidiary at beginning of period expressed in the parent company's domestic currency determined as above.....

Add profits or *deduct* losses on operations of subsidiary converted into the parent company's domestic currency at the average rates prevailing during the period..............................

Deduct:
Dividends paid, converted into the parent company's domestic currency at the current rates as of the date of payment.....

Total net worth of subsidiary at end of period, expressed in domestic currency of parent company before adjustment with respect to exchange..

The net worth of the subsidiary in the parent company's currency at the end of the period should then be obtained by conversion of its balance-sheet, as indicated above, and the difference between the amount so obtained and the net worth shown by the tabulation represents the exchange gain or loss. It may be stated that the exchange gain or loss is due to the following factors:

a. The change in the relative value of the currencies.
b. The change in the amount of the net current assets carried in the foreign currency during the period.

Obviously it is impossible for a commercial concern to exercise any control of foreign exchange rates which indicate the relative values of various currencies, but it is possible to minimize their effect by maintaining at a minimum the net current assets carried in the foreign currencies. The following statements show the computation of the value of the net assets in American currency of a wholly owned English subsidiary, assuming various amounts of net current assets and the exchange loss resulting from the decline in the value of £1 sterling from \$4.80 to \$3.84 during the period:

	Assuming that the net current assets					
	(a) Increased during the period		(b) Decreased during the period		(c) Remained the same throughout the period	
	£	\$	£	\$	£	\$
Net worth at beginning of period..........	1,000–0–0	4,800	1,000–0–0	4,800	1,000–0–0	4,800
Add—profits for the period............	500–0–0	2,160	500–0–0	2,160	500–0–0	2,160
Deduct—dividends paid	*250–0–0*	*1,080*	*750–0–0*	*3,240*	*500–0–0*	*2,160*
Net worth at end of period before exchange adjustment..	1,250–0–0	5,880	750–0–0	3,720	1,000–0–0	4,800

	Assuming that the net current assets					
	(a)		(b)		(c)	
	Increased during the period		Decreased during the period		Remained the same throughout the period	
	£	$	£	$	£	$
Balance-sheet at end of period						
Fixed assets.......	250–0–0	1,200	250–0–0	1,200	250–0–0	1,200
Net current assets..	1,000–0–0	3,840	500–0–0	1,920	750–0–0	2,880
Net worth at end of period...........	1,250–0–0	5,040	750–0–0	3,120	1,000–0–0	4,080
Exchange loss........		$840		$600		$720

In this statement the profits for the period and dividends paid have been converted to dollars at the average of the exchange rates at the beginning and end of the period, on the assumption that:

(a) The profits were earned throughout the period in proportion to the elasped time.
(b) The dividends were remitted in proportion to the profits earned.
(c) The rate of decline in the exchange value of the £ sterling was consistent throughout the period.

The following analysis of the exchange losses may be of interest:

	(a)	(b)	(c)
Loss due to reduction in dollar value of sterling net current assets at end of period..........................	$720	$480	$720
Difference between dollar value of £250 at beginning of period and its dollar equivalent remitted as dividends.		120	
Difference between dollar equivalent of the undistributed earnings (£250) and its dollar equivalent at the end of the period..................................	120		
Totals....................................	$840	$600	$720

In all cases there is a foreign exchange loss resulting from the decline in dollar value of the sterling net current assets on hand at the end of the period. In (a) there is an additional exchange loss due to the increase in the sterling net current assets during the period. In (b) there is an additional exchange loss, representing the difference between the dollar value at the beginning of the period of the £250, remitted as dividends in excess of the current earnings, and the dollars remitted. In (b) the aggregate exchange loss is less than in (c), due to the remitting of £250 during the period at a rate above the closing rate. And it should be noted that in order to obtain this result it is not necessary that the remittance to the parent company be in payment of a dividend. Suppose that the £250 remitted were charged to the current account of the parent company, it would appear as an asset on the subsidiary's balance-sheet and on conversion would be valued at the closing rate $3.84, or $960, and since the dollar equivalent of the remittance was $1,080 there would be an exchange loss of $120. The parent company would show on its books a liability of £250 equivalent to $1,080, being the dollar equivalent remitted, but at the closing date it would revalue the liability at the closing rate to $960, thus making an exchange gain of $120, exactly offsetting the exchange loss obtained by the conversion of the item in the foreign subsidiary's balance-sheet. It may be noted that before the conversion of the foreign subsidiary's balance-sheet all intercompany accounts must be reconciled and brought into agreement with the balances on the parent company's books or with those carried by other subsidiaries, using the current rates of exchange for the conversion of balances carried in foreign currencies. It should also be noted that the net exchange gain or loss on intercompany accounts is nil, since a gain to one company is offset by a loss to the other. It may be observed that when a company owns several subsidiaries operating in various countries, each of them having business transactions with the others, it is impossible to state definitely the ultimate exchange results by companies, since the offsetting results on the books of all companies should be taken into consideration. In this case the only result capable of accurate determination is the exchange gain or loss to the entire group of companies.

From the foregoing discussion it would appear that so long as a company carries current assets in foreign currencies it will be subject to foreign-exchange gains and losses with the fluctuations of exchange rates and that the amount of these gains and losses depends upon the amount of the current assets maintained in foreign countries. It follows, therefore, that the speculative risk due to fluctuations in exchange rates may be reduced by decreasing the amount of foreign current assets. This may be accomplished in two ways: the foreign subsidiary (with the support of the parent company) may borrow locally in foreign currency to approximately the amount of its net current assets or may sell foreign currency up to the same amount. In both cases the amount realized should be immediately converted into the currency of the parent company and remitted to it.

There remains the case of a company with a wholly owned foreign subsidiary which sells part of its product in a third country. An American company with a wholly owned subsidiary operating in the Argentine which sells part of its product in Great Britain in pounds sterling is chosen for the purpose of illustration. Assuming that the Argentine company obtains all its raw materials in its own country, it may be stated that the cost of its product will not be affected by the frequent variations in the value of the Argentine currency. Also the changes in the value of Argentine currency as reflected by the exchange rates will not affect the trading profits in pesos on business transacted in the Argentine, although the profits stated in dollars will be affected by any change in the relative value of dollar and peso. The results of the business transacted with Great Britain will be affected, however, by the daily changes in the relative values of the £ sterling and the peso as reflected by the quoted exchange rates, since a decline in the relative value of the £ sterling will reduce the amount of sales stated in pesos and, vice versa, an increase in its relative value will increase the sales stated in pesos, with in each case corresponding changes in the foreign expenses as stated in pesos. Not only will the value of sales and foreign expenses be affected by the changes in the relative value of the currencies, but the value of all current assets of the Argentine company in Great Britain and any inventories either in transit from or in the Argentine for sale in Great Britain will also be affected. The inventories in Great Britain and goods in transit to Great Britain, including those awaiting shipment in the Argentine, will be sold in pounds sterling, and their value is not affected by changes in the value of the peso, so these assets should be carried for accounting purposes in both currencies on the Argentine books as well as all other current assets in Great Britain, and the peso equivalent of the £ sterling balances should be adjusted at each closing date by conversion of the £ sterling balances to pesos at the current rate. The original £ sterling value of the inventories would be obtained by converting the peso cost at the current rate at the date of valuation, unless the value so obtained is more than the market. In that case the market value in £ sterling should be taken. In order to state correctly the inventories, whether in Great Britain, in transit from the Argentine or in the Argentine awaiting shipment at any closing date their market value in £ sterling should be obtained, and, if that value converted to pesos at the current rate be less than the cost in pesos, an adjustment should be made on the Argentine books to reduce the valuation to the converted British market price. Since the Argentine company is owned in America the ultimate recipient of its profits is the parent company in America and the amount is finally measured in dollars. Consequently, in order to eliminate so far as possible the speculative element in the foreign results the companies should—

1. Maintain the current assets in the Argentine at a minimum.
2. Maintain the current assets carried in £ sterling at a minimum.
3. Remit all profits realized in the Argentine to the American Company as and when earned.
4. Remit the proceeds of sales made in Great Britain when received in pesos to the Argentine Company up to the cost of the goods sold and the balance in dollars, representing the profit realized, to the American Company.

This would necessitate borrowing in the Argentine in pesos and in Great Britain in £ sterling.

It is sometimes argued that, if a company makes investments in foreign countries which it intends to maintain substantially unchanged in the foreign currencies, it is not necessary to revalue the net current assets in the foreign currency at the current rate of exchange in order to determine the profit or loss on the business, although the greater part of the parent company's investment in the foreign subsidiaries may be represented by foreign current assets. In accordance with this theory the profits or losses of the foreign subsidiary would be remitted to the parent company and would be converted at the current rates of exchange in order to determine the profit realized by the subsidiary. The investment account on the parent company's books would remain unchanged so long as the withdrawals in foreign currency made by the parent company were equivalent to the profits earned by the foreign subsidiary. This procedure would permit the parent company to take up on its books the trading profit of the foreign subsidiary and would be substantially correct, providing the net current assets of the foreign subsidiaries were kept as nearly as possible to zero or if the exchange value of the foreign currency maintained a fixed relation to that of the parent company. If, however, the relative exchange value of the foreign currency should decline substantially, this method of valuation would result in maintaining a value for the investment on the parent company's books much in excess of the amount which could be realized and if the foreign currency did not recover its former value the parent company would be obliged at some time to take up a heavy loss. The danger of this method of valuing foreign investments is apparent when considered in the light of the experience of American companies which made investments in Germany and other European countries in the years 1919 and 1920. In the case of Germany the investments so far as they were represented by current assets became valueless, when the paper currency was replaced by the present currency, and in the case of other countries the values in American currency were substantially decreased when the various currencies were stabilized on a basis considerably below the former exchange value of the currencies. Investments in fixed assets in foreign countries generally are not affected by exchange fluctuations, because in the long run their reproductive cost is adjusted on the basis of gold, particularly in the case of machinery and equipment imported from other countries.

In conclusion it may be stated that a concern engaged in international trade should conduct its business so as to realize normal profits on its foreign operations and should not try to enhance its profits by speculative gains due to fluctuations in foreign-exchange rates. But in order to realize normal profits on foreign business it is necessary to eliminate the effect of foreign-exchange fluctuations as much as possible. As has been shown, this may be accomplished by remitting all profits to the home office at frequent intervals and by keeping the assets in foreign currency at a minimum.